

**Louisiana Occupational Health and Injury Surveillance – Fundamental Program**  
**Louisiana Department of Health & Hospitals, Office of Public Health**  
**Annual Report of Major Accomplishments and Outcomes**  
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**Dianne Dugas, Principal Investigator**

Tel: 225-342-8069; email: [dianne.dugas@la.gov](mailto:dianne.dugas@la.gov)

**Michelle Lackovic, Program Manager**

Tel: 504-568-8160; email: [michelle.lackovic@la.gov](mailto:michelle.lackovic@la.gov)

The overall objectives of the program are to:

- Interact with state partners and stakeholders
- Collect, analyze, and interpret surveillance data
- Assess the strengths and limitations of each data source
- Develop new data sources and additional occupational indicators
- Produce a statewide report and disseminate findings
- Develop prevention strategies and interventions and respond to emerging issues

## **MAJOR ACCOMPLISHMENTS AND OUTPUTS**

### **Occupational health indicators**

The employment demographic profile and 18 occupational health indicators for 2010 were calculated for publication on the Council of State and Territorial Epidemiologists (CSTE) website. Workers' compensation data are not included in the 2010 data but improvements to data are anticipated: the Louisiana Workforce Commission recently adopted International Association of Industrial Accident Boards and Commissions (IAIABC) Electronic Data Interchange (EDI). A previous analysis of the workers' compensation data by our program revealed significant under-reporting of claims. Mandatory use of EDI will improve the quality and reporting of the data.

The report, Occupational Health in Louisiana: Review of Indicator Data, is posted on our website. All of the indicator data will be included on the Louisiana Environmental Public Health Tracking Program's (EPHT) website. The site is currently under final review and will become live in several months.

Occupational fatalities in Louisiana have decreased slightly in the past several years, but the rate remains significantly greater than the US rate. An occupational health brief focusing on work-related fatal falls in the construction industry is currently under final review. The fact sheet encourages workers and employers to join OSHA's Fall Prevention Campaign.

We are partnering with the Louisiana Asthma Collaborative to address work-related asthma. A first step in this project was an evaluation of adult asthma morbidity and mortality. The analysis was presented to the Asthma Collaborative and published in the Louisiana Morbidity Report. To better characterize the demographic and geographic distribution of cases, an in-depth analysis of hospitalization data was conducted and a manuscript for publication is in preparation. Although identification of work-related asthma cases is under-reported in this dataset, findings from LA's BRFSS data (results indicate that about 42% of individuals with asthma reported their asthma was exacerbated or related to work) and the high number of Louisiana industries where

asthmagens are prevalent (chemical and petrochemical, construction, and agriculture) provide evidence for alerting healthcare providers and employers to this important issue.

Heat-related morbidity is an important concern for individuals working in the SE because of the high heat and humidity (which can impair thermoregulation) and changing climate patterns that will increase the frequency, intensity, and duration of heat waves. We are addressing this locally and regionally. An intern from LSU/School of Public Health analyzed ED data for heat-related visits for a 2-year period (2010 – 2011). These findings will be written up, along with a more detailed analysis of heat-related hospitalizations which is currently in progress. On the regional level, 4 states (LA, KY, NC, and FL) convened a workgroup to conduct a multi-state analysis of occupational, heat-related morbidity. Ten states are contributing data (hospitalization and/or ED) to this analysis.

*Potential outcome*

All of these projects include reports/presentations and/ or publications with recommendations on diagnosis, treatment, and prevention of occupational issues which, if implemented, will result in a reduction in work-related morbidities and fatalities.

*Intermediate Outcome*

Our ongoing mentorship program with the two graduate public health schools in the New Orleans area advances the occupational health surveillance capacity in the area.

Increased awareness and recognition of work-related asthma by healthcare providers could result in early diagnosis and treatment, and increased awareness heat-related illness could result in improved worker education.

**Interact with state partners and stakeholders**

Through successful collaboration with other SE states (Kentucky and North Carolina) NIOSH (Emergency Preparedness & Response Office, and the Sunshine ERC), we organized and conducted a one-day meeting of the Southern States Occupational Network (SouthON) in Tampa in December 2012. There were approximately 50 attendees, including representatives from 11 of the 12 Southeast states. Plans for a 2013 meeting are currently taking place.

Improving the visibility of our occupational health program among local, state and federal partners occurred through presentations at different venues: Tulane University School of Public Health & Tropical Medicine; Louisiana Rural Health Association; Louisiana Asthma Collaborative; NIOSH Work-Related Asthma Surveillance meeting; and the Louisiana Department of Agriculture & Forestry Pesticide Applicator Re-Certification meeting. Staff also presented an overview of program activities and research projects at the Southwest Center for Agricultural Health Injury Prevention and Education's annual Board Meeting.

*Intermediate Outcome*

Collaborating with stakeholders on occupational health activities promotes and improves the occupational health capacity in the state and region.

## **Respond to emerging & emergent issues**

The program was consulted on multiple possible work-related exposures:

- Exposure to phenol by an office worker potentially exposed to laboratory chemicals at work
- Excessive mothball use in the drop ceiling and wall voids of high school classroom resulted in naphthalene exposure to students and staff
- Benzene and vinyl chloride exposure to workers at a relief well drilled at an expanding sinkwell
- Carbon monoxide exposure during power outages from Hurricane Isaac
- Elevate urine mercury levels in workers at a mercury recycling plant

Exposure to lead in indoor firing ranges was addressed by a targeted mailing to approximately 160 gun shops, police departments, and university security offices in Louisiana. The mailing included a letter and factsheet (Aim at Lead Safety) that discusses safe cleaning practices at indoor gun ranges. .

### *Intermediate Outcome*

Investigation of worksites could identify hazards, which, if addressed, will prevent ongoing exposure.

## **Enhance surveillance data**

The program was instrumental in making significant improvements to surveillance data.

- The Industry & Occupation Module was added to the 2013 BRFSS. This addition will result in querying about half of the approximately 7000 surveyed residents about the type of business or industry they work in, and the kind of work that they do.
- Census industry and occupation codes were added to LA's Mortality data. The program facilitated a partnership with the NIOSH/National Occupational Mortality Surveillance Program and the LA Office of Vital Records to code the narrative occupational and industry fields for death records from 2008 - 2009. Coded datasets have been received and are currently in review, and training for ongoing coding with the NIOCCS system is scheduled to take place in New Orleans in August, 2013.
- The Program demonstrated the utility of the NIOCCS auto coder to staff at Louisiana's Tumor Registry resulting in improvements to their industry and occupation data. LTR staff will also participate in the NIOCCS training.
- Enhancements to our electronic laboratory reporting functionality will improve the number of labs that report heavy metal and carbon monoxide data, and improve the completeness of the data, including occupation and employment information.

### *Intermediate outcome*

Efforts to improve surveillance systems will ultimately result in better surveillance data which in turn will be used to inform outreach and prevention activities.

## PRESENTATIONS

- Diagnosing & Reporting Pesticide Exposure. Louisiana Rural Health Association Annual Conference, Baton Rouge, October 2012.
- Occupational Health & Heavy Metal Surveillance. Tulane School of Public Health & Tropical Medicine's Global Environmental Health Sciences' Seminar, New Orleans, February, 2013.
- Overview of Occupational Health Surveillance at the Louisiana Office of Public Health. Tulane School of Public Health & Tropical Medicine's Environmental Health Sciences New Orleans, February, 2013.
- Adult Asthma Morbidity & Mortality. Presented at the Louisiana Asthma Surveillance Collaborative meeting, New Orleans, April, 2013.
- Asbestosis in Louisiana. NIOSH Work-Related Asthma Surveillance meeting, Oakland, CA, April 2013
- Pesticide Use in Schools: the FAQs about IPM. Housing/Schools/Microbial Annual Pesticide Applicator Recertification meeting, April 2012.
- Innovative Pilot Projects: Leading the Way to Future Research in Heat-Related Illness. Session moderator. SouthON meeting, Tampa, Florida, December, 2012

## PUBLICATIONS

- Kasner EJ, Keralis JM, Mehler L, Beckman J, Bonnar-Prado J, Lee SJ, Diebolt-Brown B, Mulay P, Lackovic M, Waltz J, Schwartz A, Mitchell Y, Moraga-McHaley S, Roisman R, Gergely R, Calvert GM. Gender differences in acute pesticide-related illnesses and injuries among farmworkers in the United States, 1998-2007. *Am J Ind Med* 2012; 55:571-583  
<http://onlinelibrary.wiley.com/doi/10.1002/ajim.22052/abstract;jsessionid=5A70EAAD8066998552BCD6E0196D4429.d03t01>
- Lewis J, Lackovic, M. A Review of Adult Asthma Morbidity and Mortality; Louisiana, 2006-2010. Louisiana Morbidity Report, Jan – Feb, 2013.  
<http://new.dhh.louisiana.gov/assets/oph/Center-PHCH/Center-CH/infectious-epi/LMR/2011-2020/2013/janfeb13.pdf>
- Hudson, N. L., Kasner, E. J., Beckman, J., Mehler, L., Schwartz, A., Higgins, S., Bonnar-Prado, J., Lackovic, M., Mulay, P., Mitchell, Y., Larios, L., Walker, R., Waltz, J., Moraga-McHaley, S., Roisman, R. and Calvert, G. M. (2013), Characteristics and magnitude of acute pesticide-related illnesses and injuries associated with pyrethrin and pyrethroid exposures—11 states, 2000–2008. *Am. J. Ind. Med.* doi: 10.1002/ajim.22216.
- Davis C, Lackovic M, Singleton C. An analysis of low back pain disorders in workers, Louisiana, 1998-2009, Interface: Ergonomics Practice Specialty; Vol 2 No 2 (reprint of a previously published article). <http://viewer.zmags.com/publication/173fa16d#/173fa16d/8>